

IN THE SPECIFICATION:

Please amend the specification as follows:

Page 1, amend the paragraph beginning in line 5 as follows:

The term “patterning device” as here employed should be broadly interpreted as referring to device that can be used to endow an incoming radiation beam with a patterned cross-section, corresponding to a pattern that is to be created in a target portion of the substrate. The term “light valve” can also be used in this context. Generally, the pattern will correspond to a particular functional layer in a device being created in the target portion, such as an integrated circuit or other device (see below). An example of such a patterning device is a mask. The concept of a mask is well known in lithography, and it includes mask types such as binary, alternating phase-shift, and attenuated phase-shift, as well as various hybrid mask types. Placement of such a mask in the radiation beam causes selective transmission (in the case of a transmissive mask) or reflection (in the case of a reflective mask) of the radiation impinging on the mask, according to the pattern on the mask. In the case of a mask, the support ~~structure~~ will generally be a mask table, which ensures that the mask can be held at a desired position in the incoming radiation beam, and that it can be moved relative to the beam if so desired.

Page 1, amend the paragraph beginning in line 18 as follows:

Another example of a patterning device is a programmable mirror array. One example of such an array is a matrix-addressable surface having a viscoelastic control layer and a reflective surface. The basic principle behind such an apparatus is that, for example, addressed areas of the reflective surface reflect incident light as diffracted light, whereas unaddressed areas reflect incident light as undiffracted light. Using an appropriate filter, the undiffracted light can be filtered out of the reflected beam, leaving only the diffracted light behind. In this manner, the beam becomes patterned according to the addressing pattern of the matrix-addressable surface. An alternative embodiment of a programmable mirror array employs a matrix arrangement of tiny mirrors, each of which can be individually tilted about an axis by applying a suitable localized electric field, or by employing piezoelectric actuators. Once again, the mirrors are matrix-addressable, such that addressed mirrors will reflect an

incoming radiation beam in a different direction to unaddressed mirrors. In this manner, the reflected beam is patterned according to the addressing pattern of the matrix-addressable mirrors. The required matrix addressing can be performed using suitable electronics. In both of the situations described hereabove, the patterning device can comprise one or more programmable mirror arrays. More information on mirror arrays as here referred to can be seen, for example, from United States Patents 5,296,891 and 5,523,193, and PCT publications WO 98/38597 and WO 98/33096. In the case of a programmable mirror array, the support ~~structure~~ may be embodied as a frame or table, for example, which may be fixed or movable as required.

Page 2, amend the paragraph beginning in line 15 as follows:

Lithographic projection apparatus can be used, for example, in the manufacture of integrated circuits (IC's). In such a case, the patterning device may generate a circuit pattern corresponding to an individual layer of the IC, and this pattern can be imaged onto a target portion (e.g. comprising one or more dies) on a substrate (silicon wafer) that has been coated with a layer of radiation-sensitive material (resist). In general, a single wafer will contain a whole network of adjacent target portions that are successively irradiated via the projection system, one at a time. In current apparatus, employing patterning by a mask on a mask table, a distinction can be made between two different types of machine. In one type of lithographic projection apparatus, each target portion is irradiated by exposing the entire mask pattern onto the target portion at once. Such an apparatus is commonly referred to as a wafer stepper. In an alternative apparatus, commonly referred to as a step-and-scan apparatus, each target portion is irradiated by progressively scanning the mask pattern under the ~~projection beam~~ of radiation in a given reference direction (the "scanning" direction) while synchronously scanning the substrate table parallel or anti-parallel to this direction. Since, in general, the projection system will have a magnification factor M (generally < 1), the speed V at which the substrate table is scanned will be a factor M times that at which the mask table is scanned. More information with regard to lithographic devices as here described can be seen, for example, from U.S. Patent 6,046,792.

Page 3, amend the paragraph beginning in line 22 as follows:

For the sake of simplicity, the projection system may hereinafter be referred to as the "lens." However, this term should be broadly interpreted as encompassing various types of projection system, including refractive optics, reflective optics, and catadioptric systems, for example. The radiation system may also include components operating according to any of these design types for directing, shaping or controlling the ~~projection~~ beam of radiation, and such components may also be referred to below, collectively or singularly, as a "lens". Further, the lithographic apparatus may be of a type having two or more substrate tables (and/or two or more mask tables). In such "multiple stage" devices the additional tables may be used in parallel or preparatory steps may be carried out on one or more tables while one or more other tables are being used for exposures. Dual stage lithographic apparatus are described, for example, in U.S. Patent Patents 5,969,441 and 6,262,796 WO-98/40791.

Page 5, amend the paragraph beginning in line 8 as follows:

According to one aspect of the present invention, a lithographic projection apparatus includes an illuminator configured to provide a ~~projection~~ beam of radiation; a support ~~structure~~ configured to support a patterning device. The patterning device is configured to pattern the ~~projection~~ beam of radiation according to a desired pattern. A substrate table is configured to hold a substrate. A projection system is configured to project the patterned beam onto a target portion of the substrate. At least one purge gas supply system is configured to provide a purge gas to at least part of the lithographic projection apparatus. The at least one purge gas supply system includes a purge gas mixture generator that includes a moisturizer configured to add moisture to a purge gas. The purge gas mixture generator is configured to generate a purge gas mixture. The purge gas mixture includes at least one purge gas and the moisture. A purge gas mixture outlet is connected to the purge gas mixture generator configured to supply the purge gas mixture to the at least part of the lithographic projection apparatus. Thus, moisture is present and the activity of chemicals, e.g. the development of the resists, is not affected by the purge gas.

Page 5, amend the paragraph beginning in line 27 as follows:

According to a further aspect of the invention a device manufacturing method includes ~~providing a substrate that is at least partially covered by a layer of radiation sensitive material;~~ applying the method described above to at least a part of ~~[[the]]~~ a substrate at least partially covered by a layer of radiation sensitive material; ~~providing a patterned projection beam of radiation;~~ projecting ~~[[the]]~~ a patterned beam of radiation onto a target portion of the layer of radiation-sensitive material; and supplying the purge gas mixture near a surface of a component used in the device manufacturing method.

Page 8, amend the paragraph beginning in line 3 as follows:

2. In scan mode, essentially the same scenario applies, except that a given target portion C is not exposed in a single "flash." Instead, the mask table MT is movable in a given direction (the so-called "scan direction", e.g., the Y direction) with a speed v , so that the ~~projection beam of radiation~~ PB is caused to scan over a mask image. Concurrently, the substrate table WT is simultaneously moved in the same or opposite direction at a speed $V = Mv$, in which M is the magnification of the lens PL (typically, $M = 1/4$ or $1/5$). In this manner, a relatively large target portion C can be exposed, without having to compromise on resolution.

Page 8, amend the paragraph beginning in line 10 as follows:

FIG. 2 shows the projection system PL and a radiation system 2 which can be used in the lithographic projection apparatus 1 of FIG. 1. The radiation system 2 includes an illumination optics unit 4. The radiation system 2 may also comprise a source-collector module or radiation unit 3. The radiation unit 3 is provided with a radiation source LA which may be formed by a discharge plasma. The radiation source LA may employ a gas or vapor, such as Xe gas or Li vapor in which a very hot plasma may be created to emit radiation in the EUV range of the electromagnetic spectrum. The very hot plasma is created by causing a

partially ionized plasma of an electrical discharge to collapse onto the optical axis O. Partial pressures of 0.1 mbar of Xe, Li vapor or any other suitable gas or vapor may be required for efficient generation of the radiation. The radiation emitted by radiation source LA is passed from the source chamber 7 into collector chamber 8 via a gas barrier structure or "foil trap" 9. The gas barrier structure 9 includes a channel structure such as, for instance, described in detail in ~~EP-A-1-233-468~~ U.S. Patents 6,862,075 and ~~EP-A-1-057-079~~ 6,359,969.